Class VI Porosity Determined

CTV II

[redacted]**Core Analysis**

[redacted]

X-ray diffraction data was available in one well, the [redacted], with a total of three data points (Figure 1). Clay speciation was primarily smectite and kaolinite. Reservoir sand from two samples in this well averages 67% quartz, 14% plagioclase and potassium feldspar, and 12% total clay (Figure 2).

Figure 1: Location of wells with core data.

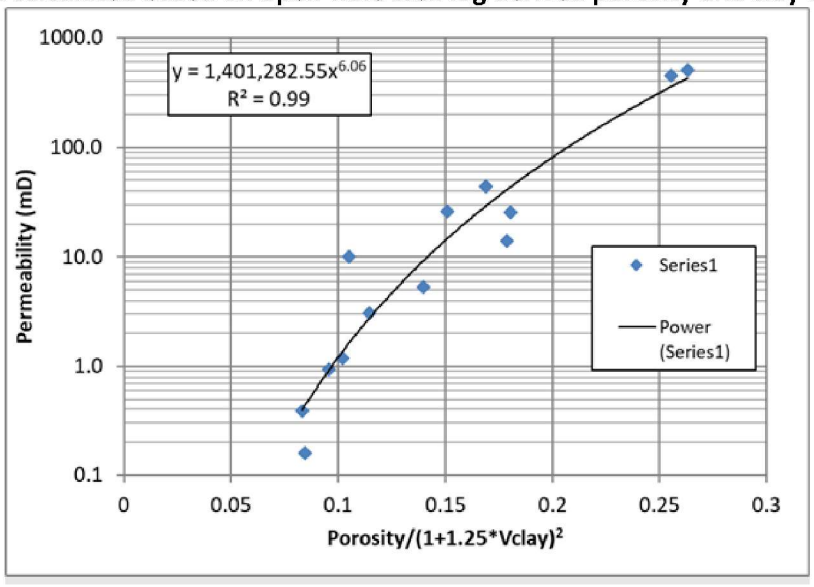
Figure 2: [redacted] mineralogy from well [redacted].

[redacted]

Porosity and Permeability

Porosity, facies (sand and shale), and clay volume are derived from the open hole well logs. These values, that have a one-foot resolution, are upscaled into the geological model and distributed using Gaussian random function simulation (kriging). Capillary pressure permeability and porosity data from core analysis and NMR logs constrain the permeability function (Figure 3).

Figure 3: Permeability transform for Sacramento basin zones. Continuous permeability for the static model is calculated based on open-hole well log derived porosity and clay volume.



Permeability is populated in the static model with the function utilizing the upscaled porosity and clay volume as inputs. Figure 4 shows the permeability and porosity from an example well, [redacted] (see Figure 5 for well location).

Figure 4: Log plot showing the calculated clay volume, porosity, and permeability over the Injection zone and the confining layers.

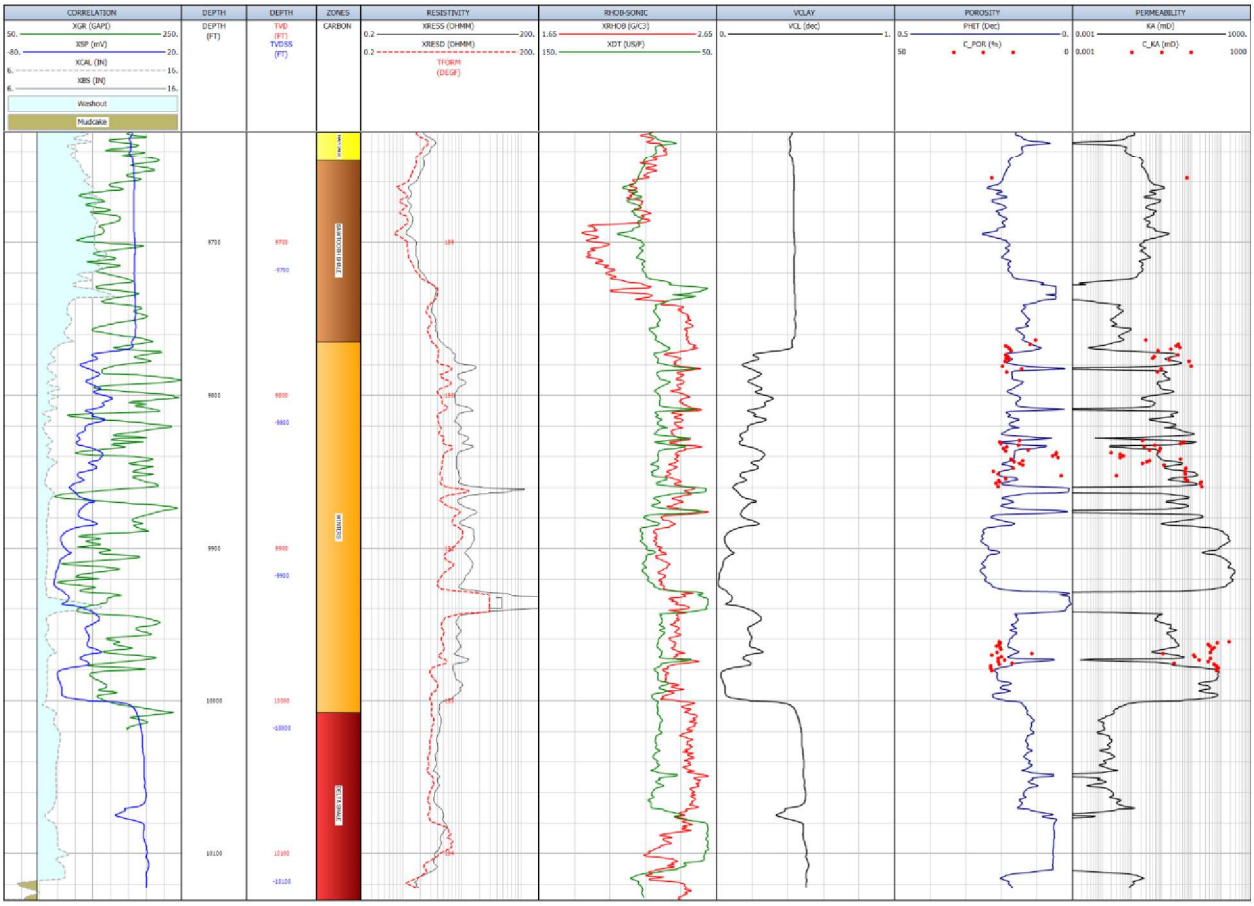
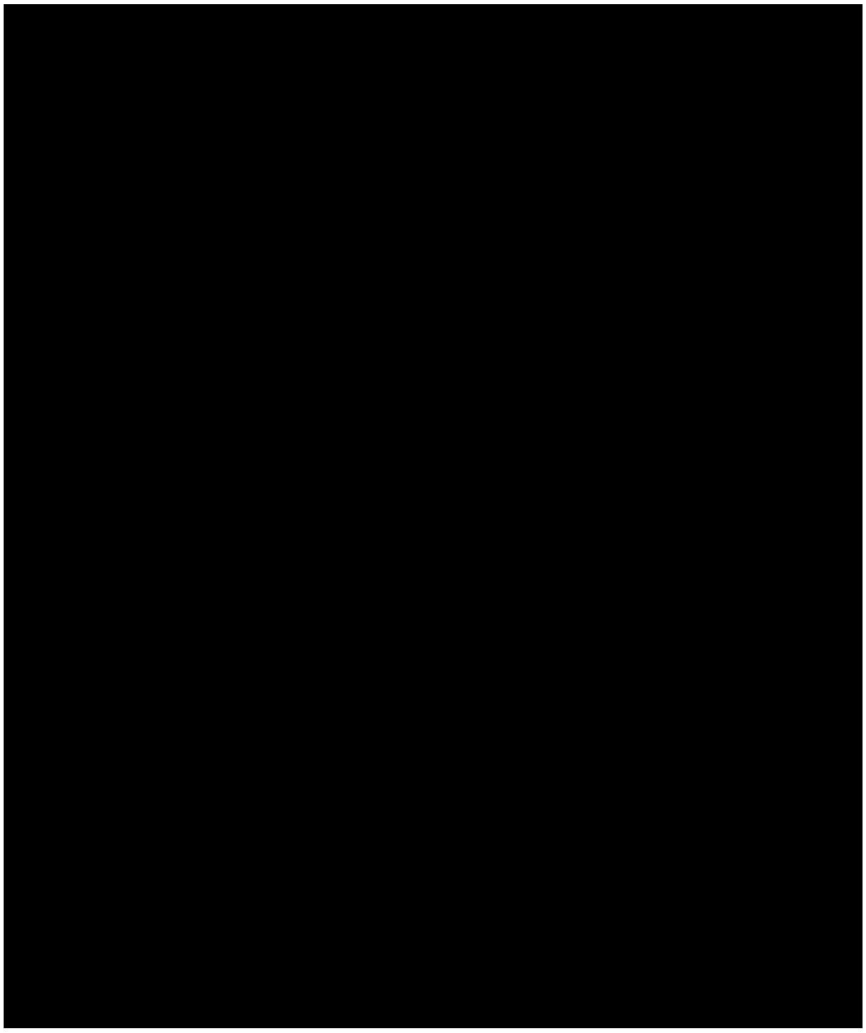


Figure 5: Map showing the location of the [redacted] relative to the [redacted] Storage project AoR.



Example core report data for the [redacted] is shown in Figure 6. The location of the well is shown in Figure 5.